BRUHAT BANAGLORE MAHANAGARA PALIKE

Executive Engineer-Yelhanka Division

Detailed Estimate

19

Name of the Work : Improvements to roads amd drains at Akshaya Nagara chitra layout,Chikkadinne and other areas in ward no-03

Estimate Amount : 11000000.00

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	CIVIL WORKS								
1	**Removing BS Slab** of drain and Stacking **(Page No 25., I.No.5.32 of KPWD S.R 2015-16).**								
		Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	BOX Drain								
	LHS								
	Ch: (0 - 46)		1	46		1.50	69.00		
	Ch: (91 - 120)		1	29		1.50	43.50		
	Ch: (229 - 259)		1	30		1.50	45.00		
	RHS								
	Ch: (0 - 46)		1	46		1.50	69.00		
	Ch: (55 - 120)		1	65		1.50	97.50		
	Ch: (187 - 229)		1	42		1.50	63.00		
	Slabs								
	LHS								
	Ch: (46 - 91)		1	45	0.90		40.50		
	Ch: (120 - 229)		1	109	0.9		98.10		
	Ch: (259 - 400)		1	141	0.9		126.90		
	Deduction for Cross roads (9+8.3+8.2+6.8+8+7+7+8.3= - 62.6)		-1	62.6	0.90		-56.34		
	RHS								
	Ch: (46 - 55)		1	9	0.90		8.10		
	Ch: (120 - 187)		1	67	0.9		60.30		
	Ch: (229 - 400)		1	171	0.9		153.90		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	BOX Drain								
	LHS								
	Ch: (121 - 171)		1	50		1.50	75.00		
	Slabs								
	LHS								
	Ch: (0 - 121)		1	121	0.75		90.75		
	Ch: (171 - 323)		1	152	0.75		114.00		
	Deduction for Cross roads (9+7.5+7.5+6.2+5.6+6.5= - 42.3)		-1	42.3	0.75		-31.73		
	RHS								
	Ch: (0 - 323)		1	323	0.75		242.25		
	Deduction for Cross roads (9+3+7.5+6.2+5.6+6.5= - 42.3)		-1	42.3	0.75		-31.73		
							1277.01	63.72	81371.08
2	**Refixing Stone Slabs** of drains and Pointing in C.M(1:3) **(Page No 25., I.No.5.33 of KPWD S.R 2015-16).**								

Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Sqm							
Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
BOX Drain								
LHS								
Ch: (0 - 46)		1	46		1.50	69.00		
Ch: (91 - 120)		1	29		1.50	43.50		
Ch: (229 - 259)		1	30		1.50	45.00		
RHS								
Ch: (0 - 46)		1	46		1.50	69.00		
Ch: (55 - 120)		1	65		1.50	97.50		
Ch: (187 - 229)		1	42		1.50	63.00		
						387.00		
Deduction for damaged 10%						-38.70		
Slabs								
LHS								
Ch: (46 - 91)		1	45	0.90		40.50		
Ch: (120 - 229)		1	109	0.9		98.10		
Ch: (259 - 400)		1	141	0.9		126.90		
Deduction for Cross roads (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		-1	62.6	0.90		-56.34		
RHS								
Ch: (46 - 55)		1	9	0.90		8.10		
Ch: (120 - 187)		1	67	0.9		60.30		
Ch: (229 - 400)		1	171	0.9		153.90		
						431.46		
Deduction for damaged 10%						-43.15		
Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
BOX Drain								
LHS								
Ch: (121 - 171)		1	50		1.50	75.00		
						75.00		
Deduction for damaged 10%						-7.50		
Slabs								
LHS								
Ch: (0 - 121)		1	121	0.75		90.75		
Ch: (171 - 323)		1	152	0.75		114.00		
Deduction for Cross roads (9+7.5+7.5+6.2+5.6+ 6.5= - 42.3)		-1	42.3	0.75		-31.73		
RHS								
Ch: (0 - 323)		1	323	0.75		242.25		
Deduction for Cross roads (9+3+7.5+6.2+5.6+6. 5= - 42.3)		-1	42.3	0.75		-31.73		
						383.55		
Deduction for damaged 10%						-38.36		
						1149.31	**78.84**	**90611.52**

	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
3	**Providing granite slabs** of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete. **10cm thick(Page No 25., I.No.5.31.2 of KPWD S.R 2015-16).**								
		Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	BOX Drain								
	for damaged						38.70		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	BOX Drain								
	for damaged						7.50		
							46.20	**794.88**	**36723.46**
4	Providing precast slab of 100 mm thick including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge- Data rate								
		Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Slabs								
	for damaged						43.15		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Slabs								
	for damaged						31.73		
							74.87	**1834.00**	**137313.41**
5	KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **(Page No141., I.No.19.1 of KPWD S.R 2015-16).**								
		Cum							
	Desilting & new drain /culvert								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	LHS								
	Ch: (0 - 400)		1	400	0.60	0.50	120.00		
	Deduction for Cross roads (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		-1	62.6	0.60	0.50	-18.78		
	Culverts		1	62.6	1.50	0.650	61.04		
	RHS								
	Ch: (0 - 400)		1	400	0.60	0.50	120.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	LHS								
	Ch: (0 - 323)		1	323	0.45	0.500	72.68		
	RHS								
	Ch: (0 - 323)		1	323	0.45	0.500	72.68		
	Cross road-1								
	LHS								
	Ch: (0 - 165)		1	165	0.45	0.500	37.13		
	RHS								
	Ch: (0 - 165)		1	165	0.45	0.500	37.13		
	Cross road-2								
	LHS								
	Ch: (0 - 56)		1	56	0.45	0.500	12.60		
	RHS								
	Ch: (0 - 56)		1	56	0.45	0.500	12.60		

	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Amount in Rs
6	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of mix1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted,in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No. KBS 4.1, 4.2 **(Page No 12., I.No.4.2 of KPWD S.R 2015-16).**	Cum					527.06	177.88	93752.54
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	LHS								
	Ch: (0 - 400)								
	Cross roads-Culverts (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		1	62.6	1.50	0.15	14.09		
							14.09	5236.92	73762.02
7	KSRB 5.2-3. **Providing and constructing granite / trap / basalt size stone masonry** in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **(Page No 23., I.No.5.6 of KPWD S.R 2015-16).**	Cum							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	LHS								
	Ch: (0 - 400)								
	Cross roads-Culverts (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		2	62.6	0.60	0.85	63.85		
							63.85	4135.32	264048.45
8	1 KSRB 15.1.1 **Providing flush pointing to square rubble,** course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. **(Page No 112., I.No.15.1 of KPWD S.R 2015-16).**	Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	LHS								
	Ch: (0 - 400)								
	Cross roads-Culverts (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		2	62.6		0.85	106.42		
							106.42	99.36	10573.89
9	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4 with cement** @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 **(Page No 12., I.No.4.6 of KPWD S.R 2015-16).**	Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	LHS								
	Ch: (0 - 400)								

	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	In Rs
	Cross roads-Culverts (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		2	62.6	0.60	0.10	7.51		
							7.51	5490.72	41246.29
10	Providing precast slab of 250mm thick including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge- Data rate								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1	**Sqm**							
	LHS								
	Ch: (0 - 400)								
	Cross roads-Culverts (9+8.3+8.2+6.8+8+7+ 7+8.3= - 62.6)		1	62.6	1.50		93.90		
							93.90	5111.00	479922.90
	ROAD WORKS								
11	KSRRB M300-14. **Excavation for roadwork in all type of soil with hydraulic excavator** of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 **(Page No 142., I.No.19.14 of KPWD S.R 2015-16).**								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1	**Cum**							
	Ch: (0 - 400)		1	400	6.10	0.45	1098.00		
	Pipe cutting		1	400	3.00	0.50	600.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20	0.45	826.02		
	Pipe cutting		1	353	3.00	0.50	529.50		
	Cross road-1								
	Ch: (0 - 165)		1	165	6	0.250	247.50		
	Cross road-2								
	Ch: (0 - 56)		1	56	6	0.250	84.00		
							3385.02	143.32	485141.07
12	KSRB 2.6 : Providing and **filling dust** in foundation upto plinth to required depth for sub soil treatment including watering, ramming with all lead and lift complete as per specifications. specification. No. KBS 2.10.2, **(Rate Analysis)**								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1	**Cum**							
	Pipe cutting		1	400	3.00	0.30	360.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Pipe cutting		1	353	2.00	0.30	211.80		
							571.80	1162.85	664917.63
13	KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 (Page No 148., I.No.19.64 of KPWD S.R 2015-16).								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1	**Sqm**							
	Ch: (0 - 400)		1	400	6.10		2440.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20		1835.60		
	Cross road-1								

	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Ch: (0 - 165)		1	165	6		990.00		
	Cross road-2								
	Ch: (0 - 56)		1	56	6		336.00		
							5601.60	**4.86**	**27223.78**
14	KSRRB M400-6.1. Construction of **granular sub-base** by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material **(Page No 154., I.No.20.4.2 of KPWD S.R 2015-16).**								
		Cum							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	6.10	0.20	488.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20	0.20	367.12		
							855.12	**1622.16**	**1387141.46**
15	KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (Page No 157., I.No.20.18 of KPWD S.R 2015-16).								
		Cum							
	ROAD								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	6.10	0.25	610.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20	0.25	458.90		
	PIPE CUTTING								
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	3.00	0.20	240.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	2.00	0.20	141.20		
	Cross road-1								
	Ch: (0 - 165)		1	165	6	0.250	247.50		
	Cross road-2								
	Ch: (0 - 56)		1	56	6	0.250	84.00		
							1781.60	**1713.96**	**3053591.14**
16	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WBM,WMM ,including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 (Page No 160., I.No.21.6 of KPWD S.R 2015-16).								
		Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	6.10		2440.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20		1835.60		
	Cross road-1								
	Ch: (0 - 165)		1	165	6		990.00		
	Cross road-2								
	Ch: (0 - 56)		1	56	6		336.00		
							5601.60	**28.08**	**157292.93**
17	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade Bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm , heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **(Page No 160., I.No.21.7 of KPWD S.R 2015-16).**								
		Sqm							

	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	6.10		2440.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20		1835.60		
	Cross road-1								
	Ch: (0 - 165)		1	165	6		990.00		
	Cross road-2								
	Ch: (0 - 56)		1	56	6		336.00		
							5601.60	**11.88**	**66547.01**
18	KSRRB M500- 15. Providing, laying **dense graded bituminous macadam** using 40/60 THP capacity H.M.P with Mechanical paver Gr-II(50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with wheeled , vibratory and tandeem rollers to achieve the desired density including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.507 **(Page No 161., I.No.21.17.6 of KPWD S.R 2015-16).**								
		Cum							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	6.10	0.05	122.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20	0.05	91.78		
	Cross road-1								
	Ch: (0 - 165)		1	165	6	0.050	49.50		
	Cross road-2								
	Ch: (0 - 56)		1	56	6	0.050	16.80		
							280.08	**6366.60**	**1783157.33**
19	KSRRB M500- 15. Providing, laying **bituminousConcrete** using **40/60 THP** capacity H.M.P with Mechanical paver Gr-II(30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with wheeled , vibratory and tandeem rollers to achieve the desired density including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.509 **(Page No 164., I.No.21.22.6 of KPWD S.R 2015-16).**								
		Cum							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		1	400	6.10	0.040	97.60		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		1	353	5.20	0.040	73.42		
	Cross road-1								
	Ch: (0 - 165)		1	165	6	0.035	34.65		
	Cross road-2								
	Ch: (0 - 56)		1	56	6	0.035	11.76		
							217.43	**7699.32**	**1674093.94**
	ROAD FURNITURES								
20	KSRRB M800-13. Providing and laying of **hot applied thermoplastic compound** 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **(Page No 181., I.No.24.15 of KPWD S.R 2015-16).**								
		Sqm							
	Akshay Nagar Main road From Yelanka main road to Attur Main road-1								
	Ch: (0 - 400)		2.5	400	0.10		100.00		
	Akshay Nagar Main road From Yelanka main road to Attur Main road-2								
	Ch: (0 - 353)		2.5	353	0.10		88.25		
	Cross road-1								
	Ch: (0 - 165)		2	165	0.1		33.00		
	Cross road-2								

	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Ch: (0 - 56)		2	56	0.1		11.20		
							232.45	473.04	109958.15
	Sub Total								10718390.00
21	Cost towards Design Report and Detailed Estimate,PMC/Third party								214367.80
22	**Cost of Plastic@ 8% of bitumen qty for BC**	Kg	1	2452.66				27.00	66221.70
23	Misellenous and other charges								1020.50
	Grand Total								11000000.00

Certificate:-

1. That the workspot inspected by me and found work is necessary.
2. That the area comes with in the Bruhat Bangalore Mahanagara Palike Limits.
3. That the rates are adopted based on the PWD SR of 2015-16
4. That the provisions made in the estimate are necessary and quite essential.

Asst. Engineer
Ward No-03
BBMP

AEE
Yelhanka Sub Division
BBMP

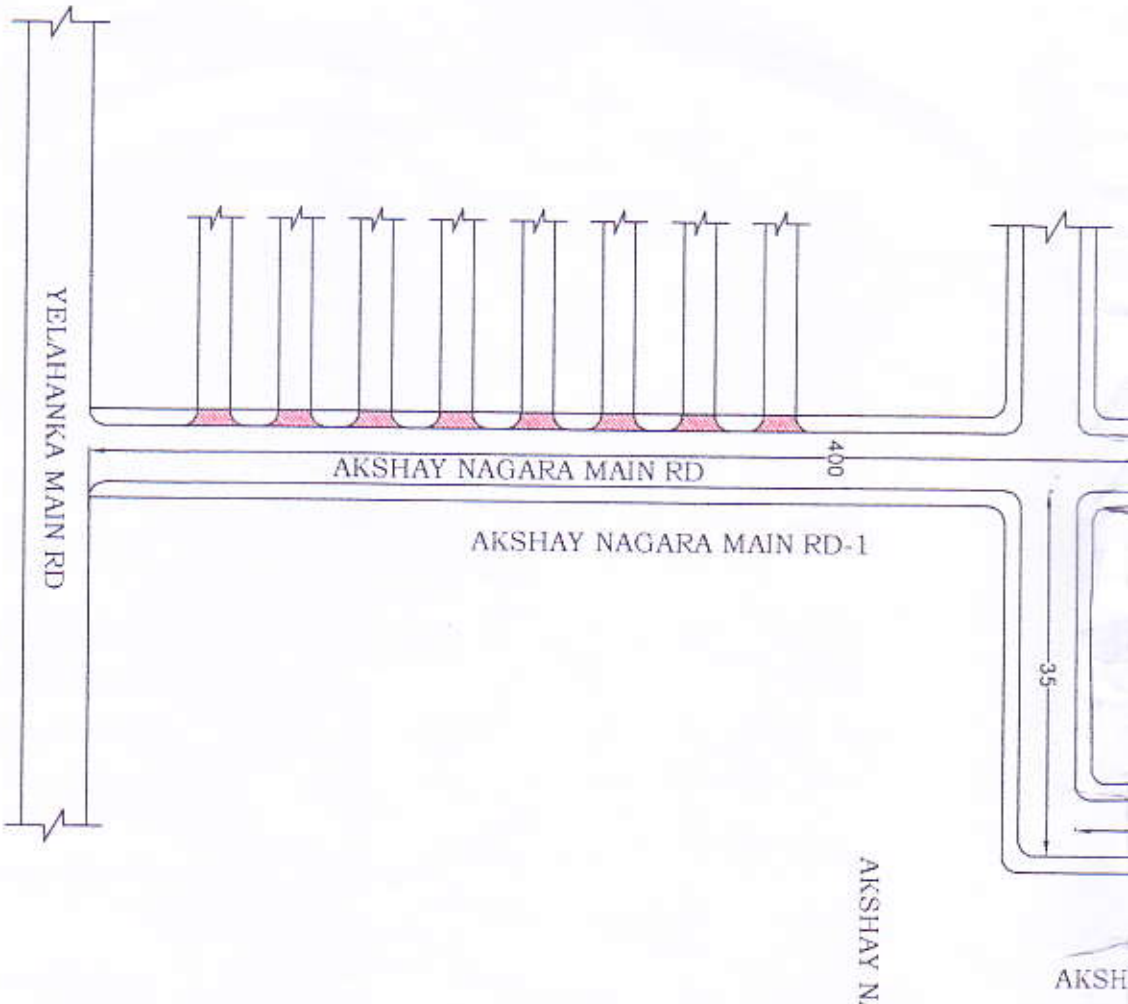
Executive Engineer
Yelhanka Division
BBMP

Administrative Sanction for Rs. 110000000=00
One Crore & Ten lacks
only
is accorded under head P-3106
2016-17
Registered as CE No. ..... Subject to conditions contained in enclosed memo No. EE/Yel/AA/ 1637-18 Dt. 30.6.17

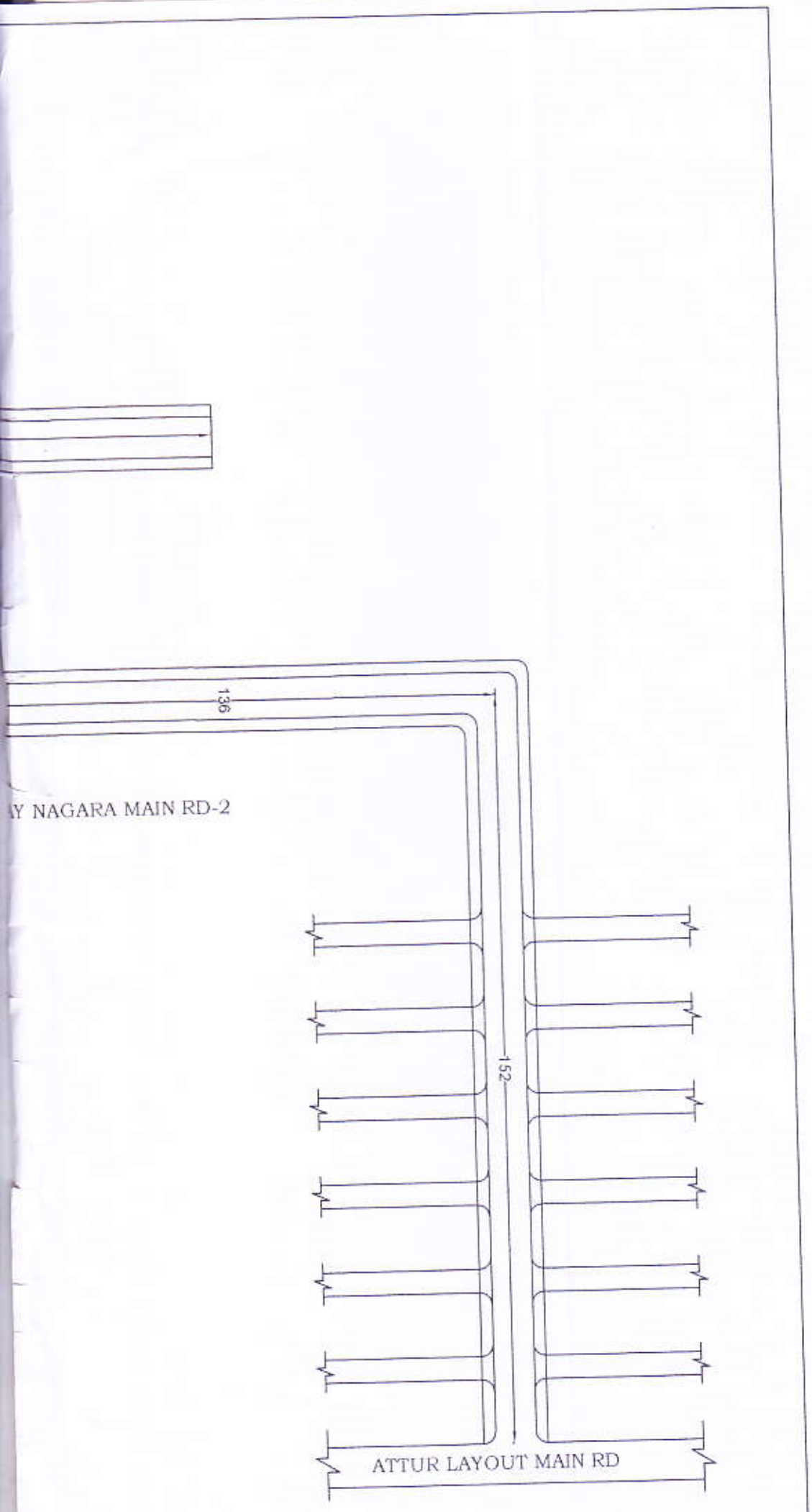
Executive Engineer

Technical Sanction
Accorded For 110 lacks
Head of A/C P-3106
CER NO :72A/2617 Dt: 23.11.16

TA CE (YNK)


YELAHANKA MAIN RD
AKSHAY NAGARA MAIN RD
400
AKSHAY NAGARA MAIN RD-1
35
AKSHAY NAGARA MAIN RD-1
AKSH

AE-03


136
Y NAGARA MAIN RD-2
152
ATTUR LAYOUT MAIN RD

Deprocon Controls
Rented Nilayam
LYD Technologies
REJAG Technologies
Private Limited
Kingfisher Water Factory
Lulu Centre
Balajivilla Coorg
Homestay
State Bank of India
NBAIR
Yelahanka Campus
Google

AE-03